

# ENERGY CHALLENGES

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Every day, we humans consume more than a million terajoules of energy. With the global population lump and industrialisation on the rise, humanity's need for energy has reached unmatched levels. There has been a growing interest in renewable energy production day by day as fossil fuels are depleting.

Renewable energy sources are preferred as they produce fewer greenhouse gases than non-renewable resources. As developing nations become more industrialised, they will need access to reliable electricity supplies. Many industries still rely on fossil fuels to produce electricity, as they are cheaper and powerful. In most parts of the world, there is a steady rise in the use of renewable energy to protect the environment from harmful emissions. Many countries started to make renewable energy their primary source of energy production but still, there is a long way to go.

According to some estimates, around 25% of the world's energy is generated with renewable energy resources which mainly include solar, wind, hydropower, and in some cases, geothermal. However, unlike non-renewable resources, there are challenges in renewable energy like economic, political, and regulatory barriers, structural, social, and technical challenges that require advancement in technology.

- All states and regions are not appropriate or suitable to build solar panels or have wind turbines. Geographical location plays a very crucial role when it comes to renewable energy. Renewable energy plants have also required a large area of land.

- The most obvious challenge of widespread adoption of renewables is cost, predominantly infrastructure costs like building and installing power plants. Over the last few years, even though the prices of installation (e.g., solar panel installation) have fallen significantly, it remains higher than non-renewables. Public preparedness is not enough only for intellectual discussions. It is important for people to understand and accept it by giving financial support to the energy transition, which is going to be very crucial for the future.

- One of the significant problems with renewable energy generation is that supplies are far more irregular than other means of energy generation. One of the most notable challenges of renewable energy is the potential to provide power on demand. Like In solar power, you only get energy during the day and only when it is sunny. And in the case of wind energy, considerable power is generated only when it is windy.



- The industrial sector is an economic powerhouse on a global scale, but also a big contributor to greenhouse gas emissions. Manufacturers need to shift to photovoltaic modules and other renewable energy technologies. This will not only reduce emissions, but also reduce production costs.

There are still many people around the world who cook and heat their homes using simple stoves, open fires that burn wood, animal dung, or coal. To increase public interest and investment in renewables, there is a need for clear and concise legal procedures and regulatory policies. Having proper regulations in place creates a stable environment for investments. Large-scale renewable energy projects needed a large amount of capital, which is delayed by the failure of proper policies that fail to attract private players.

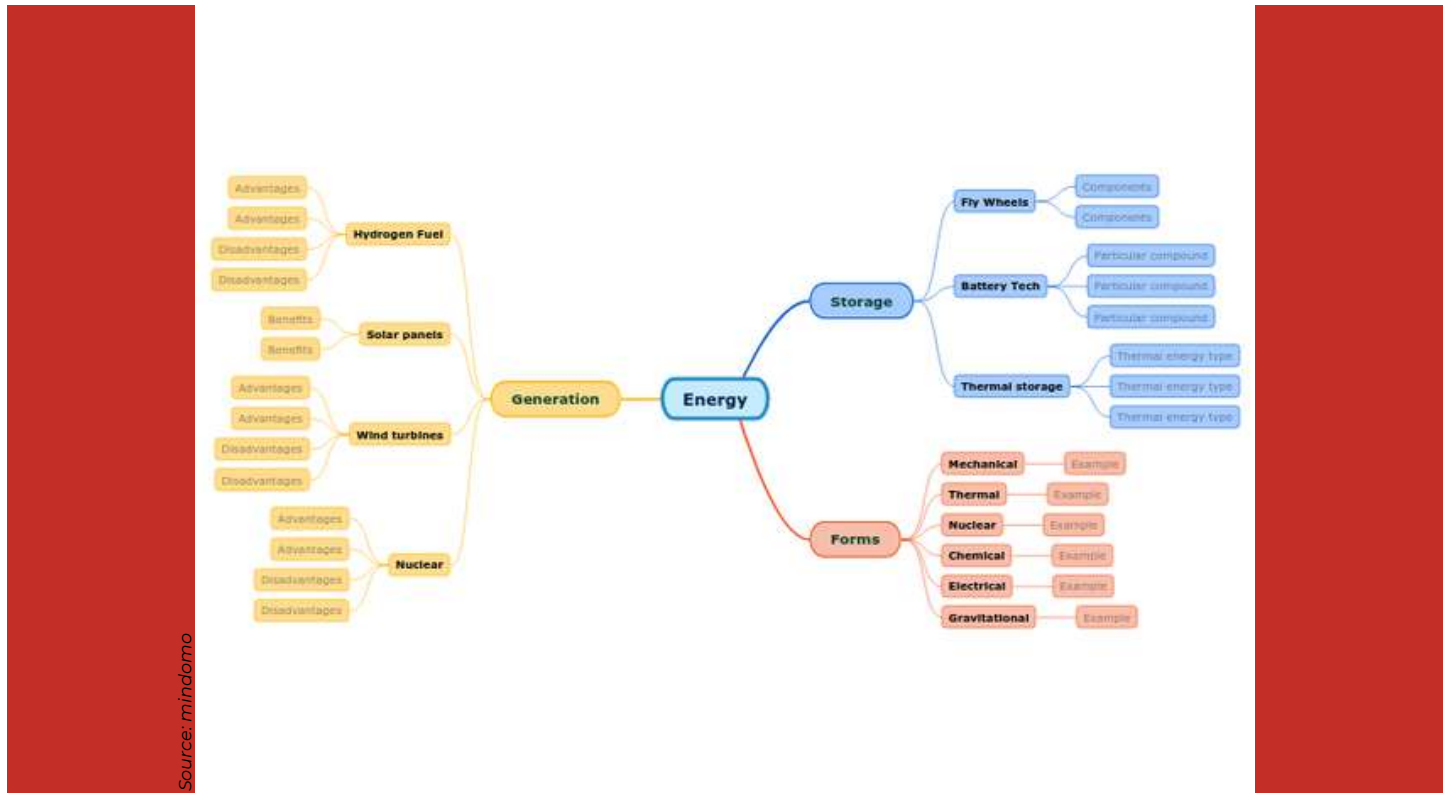
It is only possible through a concerted effort, not only from politicians and businesspeople but also from individuals and communities, that we can find a pathway through the energy transition. There are countries like Iceland and Paraguay which are already doing great by generating 100% of their electricity with renewables. We can also able to replicate these results globally if we are determined enough about it.

Source: shutter stock



## DID YOU KNOW

60 minutes of solar energy could power the Earth for a year



Source: mindomo